

R E M A R K S

Claims 1-19 currently remain in the application. Claims 17-19 are newly added claims and claims 1-3 are herein amended.

In response to the document entitled Amendment "B" After Final Action mailed February 26, 2002, the Examiner stated in said Advisory Action that the proposed amendment therein would not be entered because they raised new issues that would require further consideration and/or search. The present RCE is therefore being submitted to have such consideration and/or search to be effected. Thus, the claims section is herein amended in the same way presented in said Amendment "B" After Final Action and applicant is herein presenting the same argument as before against the Examiner's rejection in said Final Action. For the convenience of the Examiner, applicant's argument presented in the REMARKS section of said Amendment "B" After Final Action is reproduced hereinbelow.

Claim 1 was rejected under 35 U.S.C. 102 as being anticipated by Norimichi; claims 2 and 14 were rejected under 35 U.S.C. 103 over Norimichi in view of Kazuhiko; claim 13 was rejected under 35 U.S.C. 103 over Norimichi in view of Kazuhiko; claim 3 was rejected under 35 U.S.C. 103 over Norimichi in view of Taomoto; claims 4 and 16 were rejected under 35 U.S.C. 103 over Norimichi in view of Kazuhiko and Taomoto; claims 5-8 were rejected under 35 U.S.C. 103 over the references as applied to claims 1-4 above; claims 9-12 were rejected under 35 U.S.C. 103 over the references as applied to claims 1-4 above and further in view of Hirose; and claim 15 was rejected under 35 U.S.C. 103 over Norimichi in view of Taomoto and Kazuhiko. At least in part in view of the reasons for the Examiner's rejection, independent claims 1-3 are herein amended and new claims 17-19 are herein added. For the reasons to be presented below, it is believed that the amendment effected herein will overcome the Examiner's rejection.

The invention by Norimichi relates to flexible graphite sheet material comprising thermal expansion vapor deposited graphite fibers with a thermal conductivity of 120Kcal/(m·Hr·°C) or more in a direction parallel to the surface. It describes, as its Example 1, a flexible graphite sheet material comprising entirely of thermal expansion vapor deposited graphite fibers with a thermal conductively of 600Kcal/(m·Hr·°C), or 697W/(m·K). Example 2 of Norimichi, however,

relates to a flexible graphite sheet material which is a mixture of thermal expansion graphite generated from natural graphite and thermal expansion vapor-deposited graphite fibers at a ratio of 9:1. For this sheet according to Example of Norimichi, the thermal conductivity in the direction parallel to the surface is only 140Kcal/(m·Hr·°C), or 163W/(m·K). It is also to be noted that Norimichi does not disclose any example of a flexible graphite sheet material generated from thermal expansion graphite and having a thermal conductivity of 350W/(m·K) in a direction parallel to the surface.

Next, the invention by Norimichi will be compared with the present invention. The vapor-deposited graphite fibers used in the examples by Norimichi have a higher thermal conductivity than natural graphite, and the thermal expansion graphite generated from such vapor-deposited graphite fibers has a higher thermal conductivity than the thermal expansion graphite generated from natural graphite. Norimichi uses thermal expansion graphite generated from natural graphite to make a sheet by adding 10% of thermal expansion graphite generated from thermal expansion vapor-deposited graphite fibers as described above but the thermal conductivity of the sheet thus obtained is only 163W/(m·K), far below the level of 350W/(m·K) which is the thermal conductivity of the graphite sheet according to the present invention.

In other words, Norimichi is indicating that it is not possible to obtain any graphite sheet with thermal conductivity of 163W/(m·K), much less that with thermal conductivity in excess of 350W/(m·K), by using only thermal expansion graphite generated from natural graphite. In still other words, Norimichi is teaching that graphite sheets having a high thermal conductivity in excess of 350W/(m·K) can be obtained only by using thermal expansion vapor-deposited graphite fibers having a high thermal conductivity. This is to say that Norimichi is not suggesting or hint at the present invention which relates to a graphite sheet having a thermal conductivity high than 350W/(m·K), principally comprising thermal expansion graphite generated from natural graphite.

Kazuhiko relates to a reflector for reflecting electromagnetic waves and discloses as Example 1 a thermal expansion graphite sheet with surface roughness Ra = 1.0µm but there is no description which relates to the effect of the surface roughness of a sheet on its thermal conductivity although the effects of the surface roughness of the sheet on reactions with other

materials are being considered.

Taomoto relates to the technology of rolling a sheet by preventing the occurrence of lines. Although it describes how the thermal conductivity can be improved over manual operations, there are detailed descriptions of thermal conductivity. While the present invention relates to the prevention of occurrence of heat spots caused by positional unevenness in thermal conductivity of a sheet by regulating the conditions on local thermal conductivities with respect to the average thermal conductivity, there is no description even hinting at such conditions.

For these reasons, it is believed that the present invention will not be obviously achievable even if the references cited by the Examiners are considered in combination. It is therefore believed that the application is now in condition for allowance.

Respectfully submitted,
Weaver Austin Villeneuve & Sampson LLP
/kn/

Keiichi Nishimura
Registration No. 29,093

March 27, 2009
500 12th Street, Suite 200
Oakland, California 94607
Telephone: (510) 663-1100
Telefax: (510) 663-0920